

REMARKS

No new matter has been added. In view of the following remarks, all of the claims should be allowed.

Prosecution History

Further to the teleconference between the undersigned and the examiner on November 18, 2009, the undersigned respectfully notes that on page 13 of the office action of **October 15, 2007**, the Examiner noted that claim 22 would be allowable if the 35 USC § 112 rejections were overcome and that any and all intervening base claims were added to claim 22. It is based on this guidance that the independent claims were amended to include the features of claim 22 in order to expedite allowance of the current application. Notwithstanding such amendments, the prosecution of this application has extended for an additional two years. It is this added language in the independent claims which has been the focus of the office actions subsequent to that time and the examiner is respectfully requested to revisit her recent positions in light of same.

Claim Rejections - 35 USC § 103

Claims 1-21 and 24 stand rejected as allegedly being unpatentable over U.S. Publication No. US 2003/0208460 issued to Srikant et al. ("Srikant") in view of U.S. Patent No. 7,003,517 issued to Seibel et al. ("Seibel"). These rejections are traversed.

Srikant, describes a system to gather business requirements, and from such gathering, generate and link reports in an OLAP system. With Srikant, requirements are received and associated with identified report processing objects used to generate report

specifications defining a report. New report processing objects can be devised and associated with the requirements and also used in generating the report specifications. Furthermore, report specifications and a data store schema, describing a data store having data used to generate a report, are received. The report specifications and the data store schema are used to generate report metadata that can be linked to a specific report tool used to produce an instance of the report. Overall, Srikant contains components that are typical for an OLAP environment including the OLAP tool metadata 860 component which simply describes that generate and link metadata to a report-processing set of executable instructions.

Siebel on the other hand, provides a text mining system for collecting business intelligence about a client, as well as for identifying prospective customers of the client, for use in a lead generation system accessible by the client via the Internet. The text mining system has various components, including a data acquisition process that extracts textual data from various Internet sources, a database for storing the extracted data, a text mining server that executes query-based searches of the database, and an output repository. A web server provides client access to the repository, and to the mining server.

Claim 1 was amended to recite: "A system for operational reporting of multidimensional analysis of business data sources, the system comprising: one or more data sources providing OLTP data; one or more data acquisition modules to access, in a data access layer, the OLTP data from the one or more data sources; a business intelligence (BI) platform having a multidimensional database providing OLAP data , the BI platform being in a service layer; a mapping tool to transform the OLTP data of the

data sources not being processed by an OLAP engine or the BI platform to a first data set in accordance with a common meta model of a unified view module , the BI platform being in the service layer; the unified view module being part of a data abstraction layer, the unified view module integrating the first data set of the OLTP data with the multidimensional data of the multidimensional database to produce a common meta model data set; and a user interface (UI) tool set for creating a unified UI for displaying reports that are run on the multidimensional database and common meta model data set, the unified UI to build reports from the common meta model data set; the system including at least first and second data flow integration paths originating at the data sources and passing through the data access layer, the service layer, and the data abstraction layer, the first integration path comprising the OLTP data and the mapping tool and having a first service quality, and the second integration path comprising the BI platform and having a second service quality being different from the first service quality, the first service qualities being dependent on the services used by the first integration path, the second service qualities being dependent on the services used by the second integration path, and wherein the first and second service qualities are at least different in that the second service quality comprises at least some overhead of the BI platform that is not included in the first service quality, the system further comprising a resource adapter integration path allowing integration of OLTP data and external OLAP data without using the OLAP engine or other services of the BI platform” (for support, see, inter alia, specification par. 46).

As acknowledged in the office action of October 15, 2007, the cited references fail to suggest the first and second integration paths as recited in claim 1. Moreover, the

cited references also fail to suggest the third integration path as recited in the claim which provides a resource adapter integration path that allows integration of OLTP data and external OLAP data without using the OLAP engine or other services of the BI platform. The drill down and drill to detail techniques as well as the web crawling process (which simply acts to retrieve documents in a different context) of Seibel fail to suggest such an arrangement.

Claim 15 was amended to recite: "An architecture for integrating online transactional processing (OLTP) systems with online analytical processing (OLAP) system, the architecture comprising: a data access layer including one or more data access programs for accessing OLTP data from an OLTP data source; a service layer including a business intelligence (BI) platform for generating OLAP data, and a mapping tool for transforming data from the OLTP data source to a first data set in accordance with a common meta-model without processing the OLTP data by an OLAP engine or the BI platform, the BI platform providing persistency and comprising an OLAP engine; a unified view module being part of a data abstraction layer that provides the common meta-model for OLTP data of the first data set integrated with OLAP data, the data abstraction layer providing a description of the meta-model and a result set of the data, interfaces to retrieve and interact with the data, and a description of functionality available with data sources; and a user interface presentation layer to provide a user interface for displaying a report run on the integrated OLTP and OLAP data, the user interface presentation layer comprising a user interface (UI) tool set for creating a unified UI for displaying reports that are run on the multidimensional database and common meta model data set in a same report, the unified UI to build reports from the common

meta model data set; the architecture including first, second, and third data flow integration paths, the first integration path comprising the OLTP data and a mapping tool and having a first service quality, and the second and third integration paths comprising the BI platform and having a second service quality being different from the first service quality, the first service qualities being dependent on the services used by the first integration path, the second service qualities being dependent on the services used by the second integration path, and wherein the first and second service qualities are at least different in that the second service quality comprises at least some overhead of the BI platform that is not included in the first service quality, the second integration path using the OLAP engine in the BI platform, data accessed by the third integration path storing data using the persistency of the BI platform; the third integration path using the OLAP engine in the BI platform, data accessed by the third integration path not using the persistency of the BI platform to store data" (for support, see, inter alia, specification par. 40).

Claim 15 has been amended to further clarify aspects of the data abstraction layer and the user interface presentation layer. The data abstraction layer provides a description of the meta-model and a result set of the data, interfaces to retrieve and interact with the data, and a description of functionality available with data sources. Such a data abstraction layer allows, inter alia, for one to tightly integrate OLTP systems (operational systems) with OLAP systems (analytical systems) into one coherent BI platform with data flow integration paths that pass through a BI platform and data flow integration paths that bypass the BI platform. The data flow integration path bypasses the BI platform provides OLTP data while the data flow integration path that passes through

the BI platform consumes more resources because of the processing using, for example, the OLAP engine in the BI platform. Such information from both of such data flow integration paths is mapped or provided according to a common metadata model (described in the data abstraction layer) so that reports from the heterogeneous data sources can be built upon such common model.

In other words, the data abstraction layer provides many advantages indicative of the recited subject matter being non-obvious including (a) integration of real-time OLTP data with historic OLAP data into one single report or analysis, (b) common interaction paradigms and look and feel for the end user, independent of the data source, and (c) leveraging of master data, hierarchies and authorization data of the OLTP system in the BI platform without replication, and combining it with similar assets stored in the OLAP system. Such a combination is not suggested by the cited references, whether considered singly or in combination - nor do the references individually disclose each of the claimed elements (including the particular data flow integration paths, the data abstraction layer as amended herein, and the common metadata model). Moreover, in connection with claim 15, the cited references fail to suggest the recited three integration paths in which a first bypasses the BI platform, a second passes through the BI platform and uses BI platform persistence, and the third passes through the BI platform and does not use BI platform persistence (this third integration path appears to have been overlooked in the previous office action).

Claim 17 was amended to recite: "wherein the user interface presentation layer includes a design time module for generating the user interface, the design time module using the meta-model provided by the data abstraction layer to allow reports to be built

upon the meta-model” (for support, see, inter alia, specification par. 40). The cited references do not disclose that a meta-model provided by a data abstraction layer is used by a design time module within a user interface presentation layer to allow building of reports.

Claim 18 was amended to recite: “wherein the user interface presentation layer includes a runtime module having an application for displaying the user interface, the runtime module obtaining data and service quality descriptions from the data abstraction layer and layout information from the design time module, wherein a user interface abstraction layer within the runtime module provides a common command and layout description interface for both web and desktop-based user interface presentations” (for support, see, inter alia, specification par. 40). There is no suggestion in the cited references of a common command and layout description interface for both web and desktop-based user interface presentations as recited in this claim.

Claim 24 was amended to recite: “A system comprising: one or more data sources providing OLTP data; one or more data acquisition modules to access, in a data access layer, the OLTP data from the one or more data sources; an exchange infrastructure in the data access layer for process integration based on an exchange of standard messages according to predefined business process scenarios; a business intelligence (BI) platform having a multidimensional database providing OLAP data, the BI platform providing persistency, an OLAP engine, generic BI services, and business warehouse metadata, the BI platform being in a service layer; a mapping tool to transform the OLTP data of the data sources not being processed by an OLAP engine or the BI platform to a first data set in accordance with a common meta model of a unified view module, the BI platform

being in the service layer; the unified view module being part of a data abstraction layer, the unified view module integrating the first data set of the OLTP data with the multidimensional data of the multidimensional database to produce a common meta model data set, the data abstraction layer providing data manipulation services that enable interaction on data independent from, and in addition to, data manipulation services by the service layer or the data sources; and a user interface (UI) tool set for creating a unified UI for displaying reports that are run on the multidimensional database and common meta model data set, the unified UI to build reports from the common meta model data set; the system including at least first and second data flow integration paths originating at the data sources and passing through the data access layer, the service layer, and the data abstraction layer, at least one data flow integration paths passing through the BI platform and at least one data flow integration paths bypassing the BI platform” (for support, see, inter alia, specification par. 42). Claim 24 should be allowable based on similar reasoning to that presented above in connection with claims 1 and 15. Moreover, the cited references do not suggest that a data abstraction layer can provide data manipulation services independent from and in addition to data manipulation services provided by the service layer or the data sources.

Lastly, new claim 25 was added which recites: “the first integration path comprises the BI platform and has a first service quality, and a third integration path comprises the BI platform and has a second service quality being different from the first service quality, the first service qualities being dependent on the services used by the first integration path in the BI platform, the second service qualities being dependent on the services used by the third integration path in the BI platform, and wherein the first and



second service qualities are at least different in that the second service quality comprises at least some overhead of a persistency layer in the BI platform that is not included in the first service quality, the persistency layer in the BI platform storing data in structures optimized for reporting purposes.” (for support, see, inter alia, FIG. 2 and accompanying description in the specification). New claim 25 should be allowable based on similar reasoning to that of claim 24. Moreover, claim 25 recites aspects which are not suggested by the cited art and should be separately allowable on that basis. Such aspects include, inter alia, the first and second service qualities being different in that the second service quality comprises overhead of a persistency layer in the BI platform that is not included in the first service quality and that the persistency layer in the BI platform stores data in structures optimized for reporting purposes.

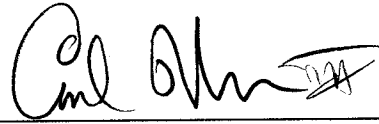
Accordingly, all claims should be allowable.

#### Concluding Comments

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment. Applicant asks that all claims be allowed.

If there are any questions regarding these amendments and remarks, the Examiner is encouraged to contact the undersigned at the telephone number provided below. The Commissioner is hereby authorized to charge any additional fees that may be due, or credit any overpayment of same, to Deposit Account No. 50-0311, Reference No. 34874-082.

Respectfully submitted,



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